Amendments to the Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any cancelled claims at a later date.

1.-11. (canceled)

12. A method for determining paths in a communication network having links for an optimized shortest-path routing relative to the network loading and having a traffic volume expected for the communication network, comprising:

initializing a link cost for each of the links;

calculating optimum paths for the routing in the communication network relative to the link costs;

determining a parameter for each the links based on the link traffic load of the communication network for routing the expected traffic volume through the calculated optimum paths;

changing the link costs based on the determined parameters such that a link cost of a first link is increased relative to a link cost of a second link when a determined parameter of the first link is greater than a determined parameter of the second link;

re-determining the parameters for the routing of the expected traffic volume via the subset of paths of the calculated paths that are optimized with respect to the changed link costs;

repeating the changing and the re-determining steps until achieving a termination criterion; and

using the subset of paths in a last step of re-determining for the routing in the communication network.

13. (new) The method in accordance with claim 12, wherein all paths for the routing in the communication network that are optimum relative to the initial values for the link costs are calculated.

14. (new) The method in accordance with claim 12, wherein the parameter for each link is based on item selected from the group consisting of an absolute traffic load, a traffic load

relative to the link bandwidth, traffic-related costs occurring during the use of the link, an availability of the link, a run time of the link, and a load capacity of final nodes of the link.

15.   (new) The method in accordance with claim 12, wherein the links are initialized to the same link cost.

16.   (new) The method in accordance with claim 12, wherein the paths are calculated via an equal cost multipath (ECMP) method.

17.   (new) The method in accordance with claim 12, wherein the changing of the link cost is in accordance to the formula:

$$\text{link cost} = \frac{(\text{link cost}) \times (\text{parameter})}{\text{average loading of the link}}$$

18.   (new) The method in accordance with claim 12,

wherein a maximum of the parameters is determined during the re-determining step; and

wherein the termination criterion is achieved when the maximum of the parameters is greater than the maximum of the parameters during the preceding changing and re-determining steps

19.   (new) The method in accordance with claim 18, wherein the subset of paths for the preceding changing and re-determining steps is used for routing in the communication network.

20.   (new) The method in accordance with claim 12,

wherein a maximum of the parameters is determined during the re-determining step; and

wherein the termination criterion is achieved:

when the maximum of the parameters is greater than the maximum of the parameters during the preceding changing and re-determining steps, and

when a determination is made that during the preceding changing and re-determining steps the subset of paths contains no alternative paths.

21.   (new) The method in accordance with claim 20,

further comprising changing a traffic matrix via random values in relation to entries in a random matrix, so that the subset of paths contains no alternative paths,

wherein the expected traffic volume is based on the traffic matrix.

22.   (new) The method in accordance with claim 20, wherein the subset of paths for the preceding changing and re-determining steps is used for routing in the communication network.

23.   (new) The method in accordance with claim 12, wherein the expected traffic volume is based on a traffic matrix.